ABSTRAK

PENGEMBANGAN *HANDOUT* PEMBELAJARAN PRAKTEK INVENTOR

Oleh :

PRASETYA DWI NUGROHO
06503244033

Tujuan dari penelitian ini adalah mengembangkan dan mengetahui kelayakan *handout* pembelajaran praktek inventor berdasarkan Kurikulum Tingkat Satuan Pendidikan untuk meningkatkan prestasi belajar siswa di SMK PIRI I Yogyakarta.

Metode penelitian yang digunakan adalah metode penelitian dan pengembangan (R&D). *Handout* pembelajaran praktek inventor ini dikembangkan melalui beberapa tahap, yaitu (1) studi pendahuluan, (2) perencanaan, (3) pengembangan produk awal, (4) revisi desain (5) uji coba lapangan awal, (6) revisi I, (7) uji coba lapangan utama, (8) revisi II, (9) uji coba lapangan operasional, (10) revisi produk akhir, dan (11) penyempurnaan produk. Penelitian ini dilakukan pada siswa kelas XI Jurusan Teknik Pemesinan SMK PIRI I Yogyakarta. Metode pengumpulan data menggunakan angket sedangkan analisa data menggunakan teknik analisis deskriptif kuantitatif persentase yang diterjemahkan dalam distribusi skor dan dipersentase terhadap kategori skala kelayakan yang telah ditentukan.

Hasil penelitian ini adalah media pembelajaran yang berbentuk *handout*. Berdasarkan silabus, materi-materi kemudian dikembangkan menjadi 9 (sembilan) buah *handout.* Materi pokok dari tiap *handout*, yaitu (1) *handout* 1: pengenalan *software* Autodesk Inventor; (2) *handout* 2: pembuatan *sketch*; (3) *handout* 3: penggunaan *extrude* dan *revolve*; (4) *handout* 4: penggunaan *hole* dan *pattern*; (5) *handout* 5: penggunaan *thread* dan *work plane*; (6) *handout* 6: penggunaan *work axis*, *work point*, dan membuat sebuah *part* berupa puli dengan berbagai macam fitur; (7) *handout* 7: perakitan komponen (*assembly part*); (8) *handout* 8: pembuatan file presentasi; (9) *handout* 9: pembuatan gambar kerja. Uji kelayakan terhadap *handout* pembelajaran praktek inventor yang dikembangkan, menurut penilaian ahli materi memperoleh persentase sebesar 95%, dari ahli media memperoleh persentase sebesar 98,5 %, dan dari ketiga uji coba yang dilakukan terhadap siswa memperoleh persentase sebesar 84,5%. Berdasarkan data tersebut, setelah dikonversi ke dalam table konversi skala empat, dapat disimpulkan bahwa *handout* yang dikembangkan sudah layak digunakan untuk mendukung pembelajaran praktek inventor.

Kata kunci: *pengembangan, handout, pembelajaran, praktek inventor*

ABSTRACT

DEVELOPMENT OF HANDOUT FOR TEACHING AND LEARNING INVENTOR PRACTICE COURSE

By:
PRASETYA DWI NUGROHO
06503244033

The purpose of this research is developing and the investigating the handout in teaching and learning process of inventor practice course based on KTSP *(Kurikulum Tingkat Satuan Pendidikan)* to improve the students' achievement in SMK PIRI I Yogyakarta.

The method of this research was Research and Development (R&D). The Handout of teaching learning inventor practice was developed by some steps, they were (1) introduction study, (2) planning, (3) developing an outline, (4) designing and revising, (5) try out of sample, (6) revision I, (7) try out of population, (8) revision II, (9) pre-test operational, (10) revision of product, and (11) completing the product. This research was addressed to the students at SMK PIRI I Yogyakarta. The technique of collecting data was a questionnaire and data analysis technique was using descriptive qualitative percentage which was translated to score distribution and percentage for each category had been determined.

The finding of this research is the media for teaching and learning process, in the form ofhandout based on the syllabus, the materials are developed into nine handouts. The main material for each handout, i.e. (1) handout 1: introducing of software Autodesk Inventor; (2) handout 2: sketch making; (3) handout 3: using extrude and revolve; (4) handout 4: the using of hole and pattern; (5) handout 5: the thread using and the using of work plane; (6) handout 6: the using of work axis, work point, and making a part of auto machine i.e. pulley that has many various figures; (7) handout 7: assembly part; (8) handout 8: making file presentation; (9) handout 9: making work drawing. According to the experts, 95 % for the validation of handout which is developed for practice inventor, from the experts of media is 98,5 %, and based on three try out sessions for the students, the result is 84,5 %. Based on the result, it can be concluded that the developed handout is valid to support the teaching and learning process of inventor practice course.

Keywords: *development, handout, teaching and learning, inventor practice course*